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ABSTRACT

Factors affecting college choice of beginning college freshmen were studied. The influence of academic background and performance of students residing in a metropolitan area was assessed from 1983 to 1986 with 33 institutions of a statewide university system. Using multivariate discriminant analysis, institutions attended were predicted using the following independent variables: Scholastic Aptitude Test verbal and mathematics scores, high school grade point average (GPA), and cumulative GPA. The analysis was performed for all students and for gender and minority status groups. For the sample of 187,923 students, it was possible to accurately predict college choice for 15% of the students, 16% for black females, 16% for black males, 14% for white females, and 17% for white males. The total structure coefficient from the discriminant analysis were similar across the five analyses. The findings support the conclusion that for students in general, institutional choice exhibits similar patterns across minority status and gender groupings. (SW)

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Predicting Institutional Choice: Patterns of Enrollment in the Higher Education Student Market

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ABSTRACT

The purpose of this paper is to investigate several factors related to the college choices of beginning freshmen. This is done by using academic background and performance along with student residence in a metropolitan area to determine the patterns of enrollment in the various institutions of a statewide university system. Thus academic background and performance are used to predict the institution attended, as compared with the institution actually selected. Additionally, analysis by gender and minority status will allow for different patterns of enrollment by these groups.

Predicting Institutional Choice:

Patterns of Enrollment in the Higher Education Student Market

Competitive efforts to influence potential students' choices of a college or university have reached the greatest levels ever. With the continuing decline in the traditional high school age cohort, efforts will be increased towards the recruitment of both entering students and transfer students. With increasing resources being devoted to recruitment and admissions activities, an understanding of enrollment patterns is essential.

The purpose of this paper is to investigate several factors related to the college choices of beginning freshmen. This is done by using academic background and performance along with student residence in a metropolitan area to determine the patterns of enrollment in the various institutions of a statewide university system. Thus academic background and performance are used to predict the institution attended, as compared with the institution actually selected. Additionally, analysis by gender and minority status will allow for different patterns of enrollment by these groups.

PREVIOUS STUDIES

Two recent studies using aggregate data have explored factors that influence college and university attendance. Stafford, Lundsted, and Lynn (1984) developed a model to explain the various levels of participation in higher education among the fifty states. Key variables included the educational level of the population, personal income, and state tax revenues per capita. Using a multiple regression approach, Strickland, Bonomo, McLaughlin, Montgomery and Mahan (1984) investigated the demand for higher education within a statewide system. Academic ability was one of the key variables included.

Two major studies in recent years have addressed in depth the topics of college choice and college admissions. Willingham and Breland (1982) provide a broad look at student characteristics in the admissions process, and conclude that self-selection has a great influence on the pool of applicants and the eventual student body. Using a discriminant analysis procedure, they found three factors that strongly influenced which applicant applied to which college: academic performance, geographic mobility, and financial need. Several variables were significant in a student's decision to enroll in a particular institution; these included high school rank, test scores, and being a local resident. Similarly, Manski and Wise (1983) found that the main effect of Scholastic Apptitude Test (SAT) scores was through the student's decision to apply, not through the institution's decision to admit. In an attempt to explain the series of decisions that constitute the process of t ion to college, they investigated the effects of such variables as race, sex, region, and family background.

In a student based on College Board data, Zemsky and Oedel (1983) emphasize the socio-economic influences on geographical preferences in terms of the location of college of interest to potential students. Similarly, in a study of students attending state-supported colleges and universities in Kentucky, Braun (1983) found the effects of geographic-demographic factors on college attendence to be significant. Cook and Zallocco (1983) found that university preferences and attendence could be predicted based upon beliefs about university characteristics and attributes. In a study of academically gifted seniors, Douglas, Powers, and Choroszy found four categories of reasons for choosing to attend a college or university. The most important factor was the academic quality of the institution, followed by special features of the institution, social aspects

of the institution, and socioeconomic forces.

METHODS

The data for this report include all students in the over 30 institutions of a state college system who attended from 1983 to 1986 and completed one or more terms. These students entered their institutions as freshmen.

The data will be analyzed using multivariate discriminant analysis. There will be separate analyses by race and sex in addition to analysis of data on all students combined. These separate analyses make it possible to determine whether the same factors influence the enrollment patterns of females and minorities as compared to males and nonminorities. This procedure will allow the prediction of the institution attended using the following independent variables: 1) Scholastic Aptitude Test verbal scores, 2) Scholastic Aptitude Test mathematics scores, 3) high school grade point average (GPA), and 4) cumulative grade point average. Cumulative credit hours attempted and cumulative credit hours earned will be included to control statistically for college experience.

For each student, the above variables will be used to predict the institution most likely attended based on the statistical pattern of the types of students attending each institution. This prediction procedure will allow the generation of classification tables in which actual institution attended may be contrasted with predicted institution attended. The analysis will be performed for all students and for gender and minority status groups.

Findings

The discriminant analysis of all students (N = 187,923) yielded six functions that meet standard criteria for statistical significance. The total structure coefficients, which are correlations of each variable with each

function, are presented in Table 1 along with the group centroids (means) which identify the relative position of each institution. The first function reflects primarily the academic background variables used in the admission process: SAT scores and high school average. It is indicative of enrolling in University A and Engineering College A (both highly selective institutions), and not enrolling in the Historically black Colleges. Function 2 is largely indicative of the high school average independent of SAT scores or college GPA. The third function has as its strongest variable a measure of college experience - credit hours have accumulated, while function 5 highlights the college GPA.

Table 2 shows the predictive accuracy of the discriminant analysis. For these 33 institutions and 187,923 students it was found that 15% of the students were correctly predicted. Those institutions with the highest level of accurate predictions include University B (32%), Engineering College B (23%), and Historically black College D (43%). The question of whether using such measures as SAT scores, high school averages and college GPA are valid across race and gender groups is investigated by calculating discriminate analyses separately for black females, black males, white females, and white males. Hispanics, Asians and Native American groups were not large enough to do separate analysis but they are included in the total analysis. For the 23,383 black females, the discriminant analysis is given in Table 3. Of the six functions, Function 1 is composed of SAT scores and high school average. The group centroids show that those black females with higher SAT scores are more likely to enroll at University A or B, Engineering College A or B, or the Health Professional College, while they are less likely to attend the Historically black Colleges. The second function highlights the high school average. The third function reflects credit hours and GPA. Those black females

at the Historically Black Colleges are more likely to have higher GPAs and credit hours than black females at other institutions. The accuracy of predictions using the discriminant analysis for black females (Table 4) was 16%. Those institutions with the highest accurate predictions were University B, Historically Black College D, and Engineering College B.

The discriminant analysis results for 12,941 black males is given in Table 5. The total structure shows similar results to those of the total and black female groups. Again, the first function reflects SAT scores and high school average. Those institutions where black males with higher scores are likely to enroll are Universities A and B and Engineering Colleges A and B. They are not likely to attend the Historically Black Colleges. The prediciton by institutions is shown in Table 6, with an accuracy of 16%. Institutions with higher rates of accuracy include Universities A and B, Commuter College D and Engineering College B.

The discriminant analysis for 78,389 white females may be found in Table 7. The total structure coefficients for the six functions are similar to those found in the previous analysis. The first function reflects SAT scores and high school average with the addition of credit hours accumulated. Institutions with high positive centroids are University B and Engineering College A, with Historically black Colleges, Commuter Colleges, Junior Colleges and Commu[redacted] Colleges having negative centroids. The predictions by institutions for white females are given in Table 8. It was found that 14% of the white females were correctly categorized. Institutions with high levels of accurate predictions include University B and HB D.

The discriminant analysis for 70,391 white males is given in Table 9. The total structure coefficients in the first function are all high positive

correlations. The group centroids for this function are high positive for University B and Engineering College A, and are negative for all other institutions except for University A and Engineering College B. The predictions for white males by institution are given in Table 10. It was possible to accurately predict for 17% of these students. Those institutions with high accurate predictions are University B and Historically black College D.

Summary and Conclusions

In this paper it has been possible to investigate several factors that are associated with students' college choices. Academic background and college performance were used in a multivariate discriminant analysis to predict institutional choice. Included were a total of almost 190,000 students enrolled at 33 institutions of a statewide college system for the period 1983 to 1986. Additionally, analysis by minority status and gender were performed to determine if there were varying patterns of enrollment by these groupings. Given academic background and college performance, it was found to be possible to accurately predict college choice for 15% of the total students, 16% for black females, 16% for black males, 14% for white females, and 17% for white males. The total structure coefficient from the discriminant analysis were quite similar across the five analyses. These findings are supportive of the conclusion that for students in general, institutional choice exhibits similar patterns across minority status and gender groupings. That is, those variables which are indicative institutional choice for one group also hold for the other groups.

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Table 1

Discriminant Analysis of Institutions by Academic Background and Performance
Total Group

N = 187,923

	Total Structure Coefficients Functions					
	1	2	3	4	5	6
Variables						
SAT - Math	.85	-.20	-.21	.08	.37	-.24
SAT - Verbal	.72	-.18	-.30	.04	-.08	.60
High School Average	.57	.76	.19	-.09	.19	.11
Hours Earned	.32	-.30	.89	-.02	-.06	.11
Hours Carried	.31	-.25	.85	.28	-.16	.06
Grade Point Average	.25	.06	.17	.15	.78	.52
Institutions	Group Centroids					
University A	.26	-.33	-.17	-.07	-.25	.02
University B	1.11	-.13	.23	.15	.13	.09
Historically Black College A	-1.35	-.01	.75	-.10	.11	-.18
Historically Black College B	-1.42	.25	.56	.73	.12	-.21
Historically Black College C	-1.29	-.40	.70	-.16	.08	-.16
Historically Black College D	-1.62	.26	.02	.02	.53	-.01
Senior College A	-.20	.13	.17	-.13	.02	.01
Senior College B	.12	-.15	.19	-.21	-.13	-.12
Senior College C	-.14	.25	.27	-.01	-.15	-.04
Senior College D	.22	-.04	.21	-.18	-.13	.03
Senior College E	-.19	-.06	.24	-.08	.01	.06
Senior College F	.00	.26	.29	.12	-.25	-.03
Commuter College A	-.87	-2.39	-.49	.24	.13	.14
Commuter College B	.02	-.23	-.08	-.07	-.04	.11
Commuter College C	-.10	.17	.20	-.08	-.15	.04
Commuter College D	-.12	.10	-.45	-.20	-.05	.04
Junior College A	-.57	.32	-.07	-.15	.02	-.02
Junior College B	-.40	.34	-.32	-.12	.19	.04
Junior College C	-.36	.64	-.07	-.30	.22	.02
Junior College D	-.80	.16	-.16	-.24	.21	.07
Community College A	-.61	.60	-.84	1.79	-.16	-.04
Community College B	-.68	.38	-.23	-.14	.42	.29
Community College C	-.64	.08	-.56	-.35	-.20	-.03
Community College D	-.36	.15	-.61	-.21	-.12	-.07
Community College E	-.18	.70	-.35	-.25	-.04	.09
Community College F	-.71	.24	-.42	-.13	.38	.10
Community College G	-.70	.05	-.45	-.09	.22	.28
Community College H	-.30	.83	-.23	-.22	.18	.15
Community College I	-.43	.17	-.54	-.24	-.16	.16
Community College J	-.31	.41	-.53	-.24	-.17	.05
Engineering College A	1.79	.12	-1.37	-.26	.43	-.65
Engineering College B	.44	-.36	.04	-.02	-.01	-.49
Health Professional College	.39	.01	.26	-.15	.29	.50

Table 2

Comparison of Actual Institution with Predicted Based upon
Academic Background and Performance: Percent Correctly Classified

Total Group

N = 187,923

Actual Institution

Predicted Institution	Univ. A %	Univ. B %	Senior Coll. B %	Commuter Coll. D %	Eng. Coll. B %	Senior Coll. F %	HB D %	Community Coll. D %
University A	5	4	5	3	14	3		3
University B	0	32	9		11	8		2
Historically Black College A	2		3	2	1	3	8	2
Historically Black College B	1				1	7	4	1
Historically Black College C	3	1	6	2	4	3	9	2
Historically Black College D	2		2	6	1	2	43	8
Senior College A								
Senior College B	1	1	3	1	1	1		
Senior College C	1	1	2	1	1	2		
Senior College D	1	1	1		1	1		
Senior College E	1		1	1	1	1		
Senior College F	4	2	4	1	3	10		2
Commuter College A	7	1	3	3	6	2	5	5
Commuter College B	1		1	1	1			
Commuter College C			1			1		1
Commuter College D	1	1	1	1	1	1		1
Junior College A	1		1	1		1	1	2
Junior College B				1				
Junior College C	1	2	3	3	2	2	1	3
Junior College D				1				1
Community College A		4				3		
Community College B	1	1	1	4	1	3	2	4
Community College C	6	1	7	11	4	4	7	13
Community College D	3	1	2	4	3	2		4
Community College E	4	3	4	6	3		1	7
Community College F	1	1	1	2	2	1	1	2
Community College G	3	1	2	4	1	2	3	5
Community College H	2	3	4	6	2	6	11	6
Community College I	2	1	2	2	1	1		2
Community College J	3	1	2	3	2	3		4
Engineering College A	6	2	4	6	10	4	1	7
Engineering College B	11	1	14	7	23	9		6
Health Professional College	8	12	8	8	5	8		3

Percent students correctly classified: 15%

Table 3

Discriminant Analysis of Institutions by Academic Background and Performance
Black Females

N = 23,383

	Total Structure Coefficients Functions					
	1	2	3	4	5	6
Variables						
SAT - Math	.68	.25	-.07	.17	.45	.48
SAT - Verbal	.68	.20	.19	.18	.42	-.50
High School Average	.62	-.55	.40	-.38	.07	.06
Hours Earned	.19	.37	.76	.13	-.44	.21
Hours Carried	.19	.19	.72	.37	-.48	.21
Grade Point Average	-.06	-.04	.68	-.04	.70	.19
Institutions	**Group Centroids**					
University A	.93	.17	-.42	.08	-.06	.07
University B	1.69	.15	.49	.10	.41	.01
Historically Black College A	-.51	.22	.35	-.11	-.13	-.01
Historically Black College B	-.67	-.43	.35	.44	-.02	-.05
Historically Black College C	-.54	.55	.23	.00	-.22	-.01
Historically Black College D	-.85	-.19	.01	-.29	.60	.06
Senior College A	.10	-.12	.09	-.26	-.12	-.01
Senior College B	.72	.16	-.02	-.15	-.07	-.07
Senior College C	.51	-.25	.15	-.04	-.15	-.04
Senior College D	.37	.40	.17	.03	.14	.08
Senior College E	.18	.07	.07	-.12	-.17	.01
Junior College F	.55	-.54	.16	.33	-.32	.09
Commuter College A	-.92	1.89	-.81	1.15	.34	-.02
Commuter College B	.33	.14	-.17	.06	.05	.09
Commuter College C	.27	-.19	-.04	-.14	-.26	.02
Commuter College D	.33	-.12	-.75	-.35	-.28	-.31
Junior College A	-.41	-.36	-.36	-.45	-.14	-.12
Junior College B	-.19	-.40	-.31	-.53	.09	-.02
Junior College C	-.04	-.62	-.11	-.86	-.09	-.01
Junior College D	-.54	.03	-.42	-.40	-.11	-.22
Community College A	-.35	-1.35	-.73	1.05	.10	-.02
Community College B	-.42	-.25	-.15	-.45	.13	.03
Community College C	-.53	.04	-.65	-.49	-.02	.03
Community College D	-.19	-.09	-.62	-.32	.11	-.04
Community College E	.33	-.88	-.59	-.77	-.33	.21
Community College F	-.39	.08	-.61	-.26	-.08	-.45
Community College G	-.36	.22	-.51	-.07	.30	.18
Community College H	-.16	-.55	-.12	-.63	.24	-.21
Community College I	.03	-.02	-.86	-.33	-.26	.10
Community College J	-.14	-.30	-.45	-.28	-.05	-.16
Engineering College A	2.94	.22	-.68	-.10	1.10	-.67
Engineering College B	1.28	.06	-.30	.03	.07	-.65
Health Professional College	1.44	.41	.33	-.08	.50	.21

Table 4

Comparison of Actual Institution with Predicted Based upon Academic Background and Performance: Percentage Correctly Classified

Black Females

Actual Institution

Predicted Institution	Univ. A %	Univ. B %	Senior Coll. B %	Commuter Coll. D %	Eng. Coll. B %	Senior Coll. F %	HB D %	Community Coll. D %
University A	12	3	7	3	8	5	1	3
University B	8	32	8	6	9	7		1
Historically Black College A	2	1	2	4		1	3	1
Historically Black College B					1	8	2	
Historically Black College C	2	1	7		3	1	5	4
Historically Black College D	2	1	3	1	22	35	15	
Senior College A	1		1					
Senior College B	1	2	2		1	1		
Senior College C	1	1	3	3	1	3		3
Senior College D	2	2	4		4	2	1	1
Senior College E			1	1		1		
Senior College F	6	2	4		3	16		1
Commuter College A	4		2	1	1	1	6	5
Commuter College B						1		1
Commuter College C	1		1					1
Commuter College D	6	1	6	10	9	2	2	11
Junior College A				6			2	3
Junior College B								1
Junior College C	2	2	3	1		2	7	3
Junior College D							3	2
Community College A		2		1		13		
Community College B				4				1
Community College C	1			1			3	5
Community College D				3	1			
Community College E	6	2	7	14	2	9	5	9
Community College F	3		3	8	1	1	7	10
Community College G	3		3	1	1	1	6	6
Community College H	2	2	4	6	2	2	5	3
Community College I	6	1	4	13	3	2	2	6
Community College J								
Engineering College A	5	11	4	1	9	1		1
Engineering College B	12	22	11	8	36	8	1	4
Health Professional College	10	22	9	3	6	8	1	4

Percent students correctly classified: 16%

Table 5

Discriminant Analysis of Institutions by Academic Background and Performance

Black Males

	Total Structure Coefficients Functions					
	1	2	3	4	5	6
Variables						
SAT - Math	.73	-.04	-.04	-.09	.54	-.42
SAT - Verbal	.68	-.08	-.14	-.28	.39	.53
High School Average	.55	.44	.29	.64	.04	.11
Hours Earned	.16	-.39	.90	-.05	.02	.07
Hours Carried	.13	-.16	.95	-.23	.02	.05
Grade Point Average	-.12	.01	.23	.37	.87	.19
Institutions	**Group Centroids**					
University A	.91	-.09	-.36	-.43	-.12	.13
University B	1.34	-.12	.38	.16	.36	.11
Historically Black College A	-.48	-.33	.25	.11	-.10	-.09
Historically Black College B	-.63	.49	.28	-.16	.14	-.01
Historically Black College C	-.43	-.63	.21	-.06	-.03	-.01
Historically Black College D	-.60	.06	-.42	.26	.32	.05
Senior College A	.02	.13	-.14	.26	-.22	-.14
Senior College B	.58	-.10	.04	.18	-.06	-.04
Senior College C	.67	.31	.20	.14	-.19	.02
Senior College D	.51	.10	.26	.03	-.22	.11
Senior College E	.07	.01	.09	.28	-.13	.10
Senior College F	.39	.64	.48	-.15	-.23	-.01
Commuter College A	-.26	-1.39	-.41	-1.86	.55	-.16
Commuter College B	.35	-.03	-.29	-.27	-.09	.10
Commuter College C	.28	.22	-.08	-.04	-.34	.03
Commuter College D	-.12	.11	-.86	-.05	-.71	.14
Junior College A	-.10	.24	-.42	.45	-.21	-.01
Junior College B	-.15	.26	-.44	.39	-.27	-.08
Junior College C	-.14	.05	-.29	.46	-.39	.03
Junior College D	-.58	-.28	-.55	.03	-.32	-.04
Community College A	-.56	1.86	-.38	-.83	.17	-.10
Community College B	-.81	-.10	-.29	.14	-.05	.21
Community College C	-.63	-.16	-.63	.06	-.37	.02
Community College D	.40	.09	-.80	-.02	-.36	.06
Community College E	.32	.27	-.46	.45	.03	-.04
Community College F	-.47	-.03	-.50	.39	.12	.05
Community College G	-.39	-.22	-.50	.11	-.47	.12
-.64unity College H	.33	-.32	.72	.14	.01	
Community College I	.09	-.04	-.77	-.15	-.57	-.08
Community College J	.06	.33	-.62	.64	-.70	-.12
Engineering College A	2.46	.08	-1.03	.34	.95	-.51
Engineering College B	1.16	.05	.09	.09	-.15	-.33
Health Professional College						

Table 6

Comparison of Actual Institution with Predicted Based upon Academic Background and Performance: Percentage Correctly Classified

Black Males

Actual Institution

Predicted Institution	Univ. A %	Univ. B %	Senior Coll. B %	Commuter Coll. D %	Eng. Coll. B %	Senior Coll. F %	HB D %	Community Coll. D %
University A	20	6	5	2	7	7	2	6
University B	11	35	12	4	21	8	1	2
Historically Black College A	1	2	3		1	1	3	2
Historically Black College B	1	1			1	6	2	
Historically Black College C	3	4	9		3	2	6	2
Historically Black College D	3	1	3	4	1	1	18	3
Senior College A			1	4	1	1		
Senior College B	1	2	2		1	1		2
Senior College C	2	1	2	4	3	3	1	2
Senior College D	3	2	3		1	4		
Senior College E	1	1	3		2	2		1
Senior College F	4	3	3		5	21	1	
Commuter College A	6	1	2	5	2	1	6	1
Commuter College B	1		1	2	1	3	2	4
Commuter College C			1			1		
Commuter College D	5	1	4	21	1	1	5	11
Junior College A								1
Junior College B			1			1		
Junior College C		1	1					1
Junior College D	1	1	1	2	1		5	3
Community College A		2				12		
Community College B	1			2			10	1
Community College C		1	1	5			5	3
Community College D	5	1	3	2	5	3	2	4
Community College E	3	4	6		6	4	2	4
Community College F		1	1					
Community College G		1	1	4			1	
Community College H	2	2	5	11	1	4	13	3
Community College I	6		3	7	2	2	4	19
Community College J	4	2	8	18	5	4	8	8
Engineering College A	10	17	6	4	10	2	3	7
Engineering College B	7	9	11	2	20	7		8
Health Professional College								

Percent student correctly classified: 16%

Table 7

Discriminant Analysis of Institutions by Academic Background and Performance

White Females

N = 78,389

	Total Structure Coefficients Functions					
	1	2	3	4	5	6
Variables						
SAT - Math	.76	.23	.18	-.41	.27	-.32
SAT - Verbal	.53	.20	.19	-.37	.28	.65
High School Average	.65	-.71	-.02	-.07	.27	.01
Hours Earned	.57	.26	-.45	.62	-.06	.11
Hours Carried	.58	.24	-.16	.73	-.16	.11
Grade Point Average	.28	-.02	.07	.20	.93	.09
Institutions	**Group Centroids**					
University A	.19	.43	-.01	-.23	-.10	.21
University B	1.01	.13	.12	-.01	.10	.01
Historically Black College A	-.99	.29	-.10	.50	1.02	.76
Historically Black College B	-.45	.29	1.66	.97	.76	.50
Historically Black College C	-.75	.74	-.37	.70	.40	-.16
Historically Black College D	-1.05	-.86	-.08	.82	.42	-.71
Senior College A	-.09	-.10	-.19	.22	.01	-.10
Senior College B	.11	.14	-.29	.09	-.24	-.10
Senior College C	.11	-.25	-.18	.28	-.10	-.01
Senior College D	.15	-.17	-.20	.13	-.08	-.04
Senior College E	-.14	.07	-.23	.32	.01	-.06
Senior College F	.04	-.28	-.09	.30	-.18	.03
Commuter College A	-1.14	2.70	.06	.05	.09	-.07
Commuter College B	-.15	.25	-.09	-.06	.01	.09
Commuter College C	-.05	-.20	-.22	.22	-.05	.14
Commuter College D	-.36	-.14	-.01	-.27	-.01	.01
Junior College A	-.55	-.43	-.10	.12	.02	-.10
Junior College B	-.53	-.25	.03	-.11	.24	-.12
Junior College C	-.51	-.79	-.22	.04	.17	-.11
Junior College D	-.84	-.23	-.21	-.09	.21	-.12
Community College A	-.65	-.34	2.12	.42	-.17	-.04
Community College B	-.78	-.51	-.04	.04	.54	.01
Community College C	-.72	-.17	-.07	-.52	-.19	.02
Community College D	-.65	-.24	.05	-.38	-.17	-.04
Community College E	-.47	-.82	-.05	-.19	-.01	.06
Community College F	-.94	-.22	.05	-.03	.46	-.20
Community College G	-.90	-.13	.01	.03	.43	.09
Community College H	-.47	-1.00	-.06	-.04	.27	-.05
Community College I	-.68	-.18	.02	-.31	.03	.19
Community College J	-.59	-.39	.04	-.41	-.18	.07
Engineering College A	1.15	-.01	.53	1.89	-.06	-.52
Engineering College B	.33	.20	-.01	-.30	-.16	-.32
Health Professional College	.38	.22	-.20	.13	.40	.02

Table 8

Comparison of Actual Institution with Predicted Based upon
Academic Background and Performance: Percentage Correctly Classified

White Females

Actual Institution

Predicted Institution	Univ. A %	Univ. B %	Senior Coll. B %	Commuter Coll. D %	Eng. Coll. B %	Senior Coll. F %	HB D %	Community Coll. D %
University A	8	6	5	4	5	3		2
University B	14	33	11	5	13	10		2
Historically Black College A	6	2	2	8	2	4	13	8
Historically Black College B								
Historically Black College C	6	2	8	3	3	5	16	2
Historically Black College D	1	1	3	6	2	6	45	7
Senior College A								
Senior College B	4	3	8	2	4	4		
Senior College C	2	3	5	1	2	6		
Senior College D		1	1	1		1		
Senior College E	1		2	1	1	2		
Senior College F	2	1	3	1	2	2		2
Commuter College A	4		2	2	5	1		3
Commuter College B	1		1	1	1			
Commuter College C	2	2	2	2		3		1
Commuter College D	1			1				1
Junior College A			1	1	1	1		1
Junior College B	1	1	1	1	1	1		1
Junior College C		1	1	1	1	1		2
Junior College D	1		1	2		1	5	2
Community College A		3				2		
Community College B	1	1	1	2	1	2	3	3
Community College C	6	2	8	11	6	4		13
Community College D	1		1	2	1	2		4
Community College E	3	2	4	6	5	7		7
Community College F	2	1	2	4	3	1	3	4
Community College G	1		1	1		1	3	1
Community College H	2	4	3	5	4	6	5	6
Community College I	3	1	2	3	1	1		3
Community College J	3	1	3	4	4	4	3	6
Engineering College A	7	11	4	6	11	3		6
Engineering College B	8	8	9	7	14	6		6
Health Professional College	5	8	6	5	3	5		1

Percent students correctly classified: 14%

Table 9

Discriminant Analysis of Institutions by Academic Background and Performance

White Males

N = 70,391

	Total Structure Coefficients Functions					
	1	2	3	4	5	6
Variables						
SAT - Math	.81	.14	-.47	-.08	.05	-.30
SAT - Verbal	.62	.17	-.37	.03	.11	.66
High School Average	.64	-.75	.09	-.04	.15	.01
Hours Earned	.49	.36	.79	-.02	.02	-.02
Hours Carried	.48	.34	.74	.29	-.12	-.03
Grade Point Average	.39	-.03	.04	.20	.90	-.02
Institutions	Group Centroids					
University A	.08	.48	-.17	-.08	-.10	.17
University B	.98	.03	.10	.12	.09	.03
Historically Black College A	-.66	-.38	-.17	.17	1.11	.46
Historically Black College B	-.60	.23	-.54	1.12	.44	-.02
Historically Black College C	-.75	.54	.44	.03	.74	-.12
Historically Black College D	-1.28	-.59	.27	.25	1.09	-.74
Senior College A	-.37	-.07	.22	-.07	.06	-.01
Senior College B	-.11	.16	.27	-.21	-.13	-.08
Senior College C	-.22	-.13	.25	.06	-.12	.01
Senior College D	-.03	.17	.35	-.01	-.19	.08
Senior College E	-.29	.04	.32	-.02	.13	.03
Senior College F	-.16	-.19	.40	.15	-.25	.01
Commuter College A	-1.03	2.33	-.46	.09	.20	-.06
Commuter College B	-.09	.31	-.01	-.04	.01	.06
Commuter College C	-.20	-.12	.30	.01	-.12	-.02
Commuter College D	-.55	-.13	-.32	-.19	-.11	.07
Junior College A	-.84	-.42	.26	-.02	.12	-.06
Junior College B	-.55	-.44	-.23	-.04	.15	-.04
Junior College C	-.41	-.69	.08	-.16	.32	-.16
Junior College D	-.84	-.26	.01	-.06	.42	-.06
Community College A	-.71	-.41	-.90	1.79	-.18	-.09
Community College B	-.79	-.36	-.06	.02	.58	-.04
Community College C	-.95	-.01	-.33	-.22	-.18	.16
Community College D	-.75	-.18	-.43	-.17	-.14	-.02
Community College E	-.49	-.81	-.11	-.12	-.01	.07
Community College F	-.76	-.44	-.30	-.04	.46	-.04
Community College G	-1.03	-.10	-.33	-.01	.17	-.01
Community College H	-.57	-.96	.05	-.08	.19	.01
Community College I	-.62	-.20	-.43	-.16	.02	.22
Community College J	-.61	-.51	-.30	-.13	-.06	.16
Engineering College A	1.19	-.44	-1.59	-.49	-.05	-.14
Engineering College B	.14	.15	.12	-.12	-.15	-.31
Health Professional College	-.09	-.14	.44	-.05	.43	.72

Table 10

Comparison of Actual Institution with Predicted Based upon
Academic Background and Performance: Percentage Correctly Classified

White Males

Predicted Institution	Actual Institution: Univ. A %	Univ. B %	Senior Coll. B %	Commuter Coll. D %	Eng. Coll. B %	Senior Coll. F %	HB D %	Community Coll. D %
University A	10	6	5	4	5	3		3
University B	12	34	9	4	14	8		1
Historically Black College A	5	4	3	6	3	4	7	6
Historically Black College B	1			1		1	5	1
Historically Black College C	5	2	6	3	5	4	6	3
Historically Black College D	1	1	3	6	3	3	47	8
Senior College A								
Senior College B	1	1	2		1	1		
Senior College C								
Senior College D	4	3	8	1	5	6		1
Senior College E								
Senior College F	2	2	5	2	5	13		1
Commuter College A	8	1	4	3	5	2	1	5
Commuter College B								
Commuter College C								
Commuter College D	1	1	1	1	1	1		1
Junior College A	1		3	5	1	4	2	5
Junior College B								1
Junior College C	1	3	3	3	4	3	2	2
Junior College D								
Community College A		4				2		
Community College B								
Community College C	6	1	8	12	5	6	2	14
Community College D	4	1	4	6	4	3	2	7
Community College E	2	2	3	4	4	4	1	5
Community College F	1	1	1	1	1			1
Community College G	2		3	4	1	2	7	5
Community College H	2	1	3	4	2	5	16	4
Community College I	1	1	1	2	1	1		1
Community College J	1	1	1	2	2	2		2
Engineering College A	7	13	5	7	7	4	1	8
Engineering College B	7	8	9	5	13	7	1	5
Health Professional College	7	8	7	6	4	8		3

Percent students correctly classified: 17%